

PPL13 PROJECT NOMINEE FACT SHEET

Final, March 12, 2003

Project Name and Number

Shark Island Shoreline Protection

Coast 2050 Strategy

Regional Strategy #11; Maintain shoreline integrity and stabilize critical areas of Vermilion, E. and W. Cote Blanche, Atchafalaya, Caillou, Terrebonne, and Timbalier Bay systems including the gulf shoreline.

Project Location

Region 3, Teche-Vermilion Basin, Iberia Parish; the western shoreline of Shark Island from Weeks Bay around Pelican Point down to Blue Point.

Problem

This shoreline has experienced some of the greatest loss in the Teche-Vermilion Basin. Wind and wave action has greatly deteriorated the coastline. The northern end of the shore has retreated approximately 36 feet/year and the southern half of the shore has retreated 24 feet/year as reported by Britsch and Dunbar (1996). Between 1978-1990 the shoreline loss is estimated to be 0.5 square miles/year (1994 U.S. Dept. of Interior).

Goals

Stabilize the western shoreline of Shark Island.

Proposed Solution

Construct approximately 4.5 miles of fore-shore hard structure in shallow waters parallel to the shoreline.

Preliminary Project Benefits

This project would halt 100% of the shoreline loss along the western side of Shark Island while providing limited secondary protection to brackish marshes to the east. Sediment excavated for construction flotation would be used beneficially to create approximately 42 acres of marsh elevations behind the hard structures. The project will protect 1,800 acres of adjacent marsh.

Compatibility with Coast 2050 Criteria

Wetland Elevation/Sustainability

The project will maintain the shoreline integrity and provide protection from northwesterly wind that have a predominant impact to the shoreline during cold front passage, and easterly marshes from wave action and saltwater intrusion. Protection of this shoreline will allow for any natural vertical accretion of the marsh to continue.

Protection of the island peninsula (Pelican Point) separating Weeks Bay from Vermilion Bay is also a long-term priority. Over a 20-year project life, the project would protect approximately 291 acres of marsh from shoreline erosion using an average rate of 30 ft/year. Additionally, 42 acres of marsh elevations would be created from beneficial use placement of dredged material.

Ecosystem Influence Area

The project would directly protect 291 acres of marsh adjacent to the shoreline and indirectly protect approximately 1800 acres of Shark Island marsh (i.e., western half of the island).

Structural Framework

Hard structures would maintain the bay shorelines by reducing erosion of less than one fourth of the ecosystem influence area for more than 20 years.

Infrastructure

The project would not have any impact to critical or non-critical infrastructure.

Organism and Material Linkages

Structures used for the project would allow moderately less exchange of organisms and material, but will remain consistent with the sustainability of the ecosystem.

Coast 2050 Habitat Objectives

Habitat currently located in the project area consists of brackish marshes. The project would maintain the shoreline and achieve the Coast 2050 habitat objective for this area by maintaining brackish marsh.

Project Synergy

The project would not have any synergistic effect with other approved CWPPRA restoration projects.

Preliminary Construction Costs

\$14,528,000 (construction + 25% contingency)

Preparer of Fact Sheet

Patrick Williams, National Marine Fisheries Service; (225)389-0508; patrick.williams@noaa.gov